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# OWNER'S MANUAL

# FDS

## FIRE DETECTION AND SUPPRESSION SYSTEM

**Installation instructions**

**Operating instructions**

**CHD25**  
**CHD30**  
**CHD35**

Cissell Manufacturing Co.

831 S. First St. - P.O.Box 32270 - Louisville, Ky. - 40232-2270

Tel: (502) 587-1292 - Fax: (502) 585-2333 -

Sales Fax: (502) 585-3625 - Service/Parts Fax: (502) 681-1275

**THIS MANUAL MUST BE GIVEN TO THE EQUIPMENT OWNER**

## **CISSELL DRYER WARRANTY**

The Cissell Manufacturing Company (Cissell) warrants all new equipment (and the original parts thereof) to be free from defects in material or workmanship for a period of three (3) years from the date of sale thereof to an original purchaser for use, except as hereinafter provided. With respect to non-durable parts normally requiring replacement in less than three (3) years due to normal wear and tear, and with respect to all new repair or replacement parts for Cissell equipment for which the three (3) year warranty period has expired, or for all new repair or replacement parts for equipment other than Cissell equipment, the warranty period is limited to ninety (90) days from date of sale. The warranty period on each new replacement part furnished by Cissell in fulfillment of the warranty on new equipment or parts shall be for the unexpired portion of the original warranty period on the part replaced.

With respect to electric motors, coin meters and other accessories furnished with the new equipment, but not manufactured by Cissell, the warranty is limited to that provided by the respective manufacturer.

Cissell's total liability arising out of the manufacture and sale of new equipment and parts, whether under the warranty or caused by Cissell's negligence or otherwise, shall be limited to Cissell repairing or replacing, at its option, any defective equipment or part returned f.o.b. Cissell's factory, transportation prepaid, within the applicable warranty period and found by Cissell to have been defective, and in no event shall Cissell be liable for damages of any kind, whether for any injury to persons or property or for any special or consequential damages. The liability of Cissell does not include furnishing (or paying for) any labor such as that required to service, remove or install; to diagnose troubles; to adjust, remove or replace defective equipment or a part; nor does it include any responsibility for transportation expense which is involved therein.

The warranty of Cissell is contingent upon installation and use of its equipment under normal operating conditions. The warranty is void on equipment or parts; that have been subjected to misuse, accident, or negligent damage; operated under loads, pressures, speeds, electrical connections, plumbing, or conditions other than those specified by Cissell; operated or repaired with other than genuine Cissell replacement parts; damaged by fire, flood, vandalism, or such other causes beyond the control of Cissell; altered or repaired in any way that effects the reliability or detracts from its performance, or; which have had the identification plate, or serial number, altered, defaced, or removed.

No defective equipment or part may be returned to Cissell for repair or replacement without prior written authorization from Cissell. Charges for unauthorized repairs will not be accepted or paid by Cissell.

Cissell makes no other expressed or implied warranty, statutory, or otherwise, concerning the equipment or parts including, without limitation, a warranty of fitness for a particular purpose, or a warranty of merchantability. The warranties given above are expressly in lieu of all other warranties, expressed or implied. Cissell neither assumes, nor authorizes any person to assume for it, any other warranty or liability in connection with the manufacture, use or sale of its equipment or parts.

For warranty service, contact the distributor from whom the Cissell equipment or part was purchased. If the distributor cannot be reached, contact Cissell.

### **IDENTIFICATION NAMEPLATE**

The identification nameplate is located on the rear wall of the dryer. It contains the dryer serial number, product number, model number, electrical specifications and other important data that may be needed when servicing and ordering parts, wiring diagrams, etc. Do not remove this nameplate.

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# INSTALLATION

Contact your local water company or the proper municipal authority for information regarding local codes.

**IMPORTANT:** It is your responsibility to have ALL plumbing connections made by a qualified professional to assure that the plumbing installation is adequate and conforms to local, state, and federal regulations or codes.

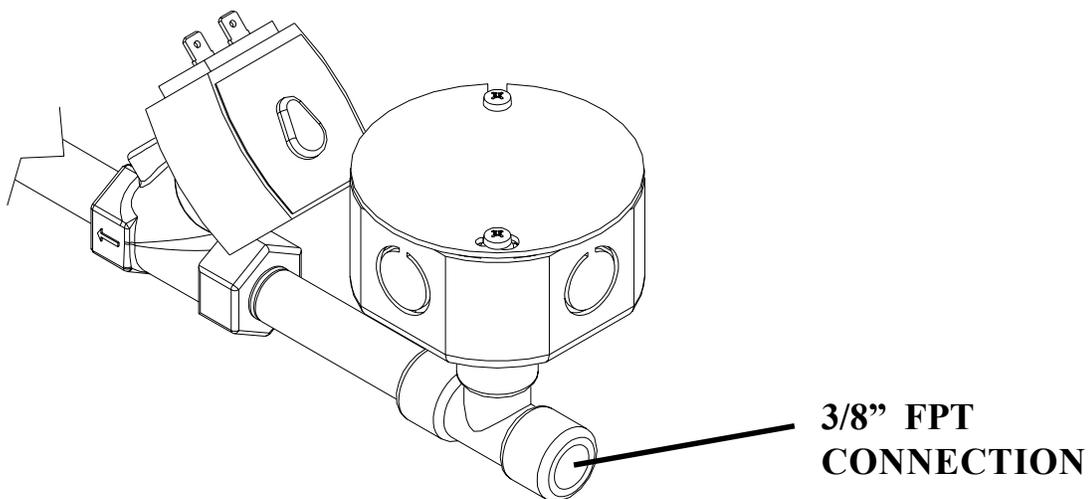
**IMPORTANT:** It is the installation or owners responsibility to see that the necessary or required water, water pressure, pipe size, or connections are provided.

**WARNING:** Water must be supplied to FDS for the system to work properly.

The connection point to the FDS is a 3/8" FPT, the FDS must be supplied with a minimum water pipe the size of 3/8" and be provided with a minimum of 30 PSI (2.07 bars) and a maximum of 100 PSI (6.89 bars) of pressure.

If the rear area of the dryer, or the water supply is located in an area where it will be exposed to cold/freezing temperatures, provisions **must be** made to protect these water lines from freezing.

**WARNING:** If the water in the supply line, water solenoid valve, or pressure sensor freezes, the FDS **will be INOPERATIVE**.



# FDS

## Fire Detection and Suppression system

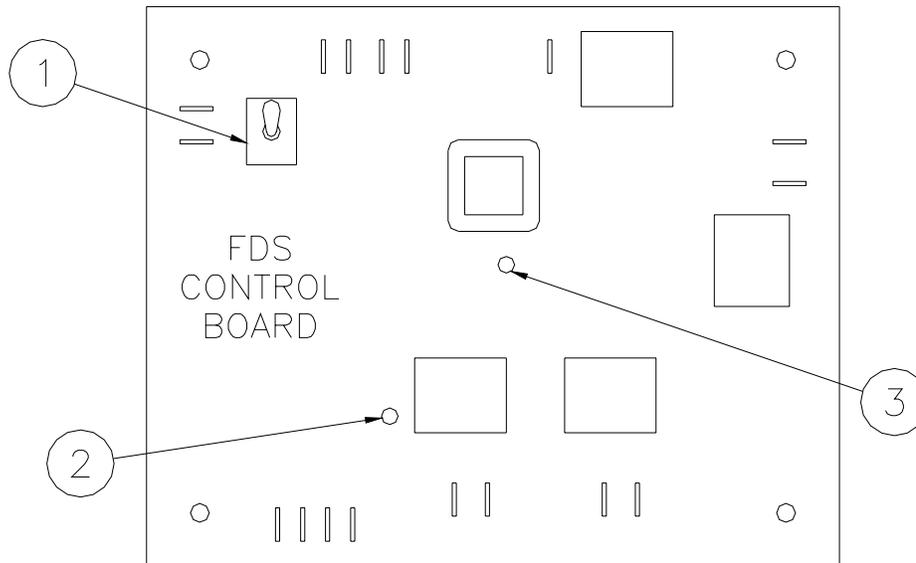
The FDS control detects a fire in a dryer basket when one of two thermostats reaches a set point. The FDS control then breaks power to the main dryer control. An alarm buzzer is activated and a water valve is opened. The water valve stays open until a predetermined volume of water is sprayed into the dryer basket. The alarm buzzer stays activated until the FDS control is reset.

**CAUTION:** This system is designed as an additional safety feature only. It does not prevent a fire nor does it guarantee to extinguish a fire.

### FEATURES

1. Power Led
2. Water Pressure Led
3. Water Pressure Sensor
4. Low or No Pressure (Intermittent Buzzer)
5. Alarm (Buzzer on Continuously)

### FDS BOARD DESCRIPTION



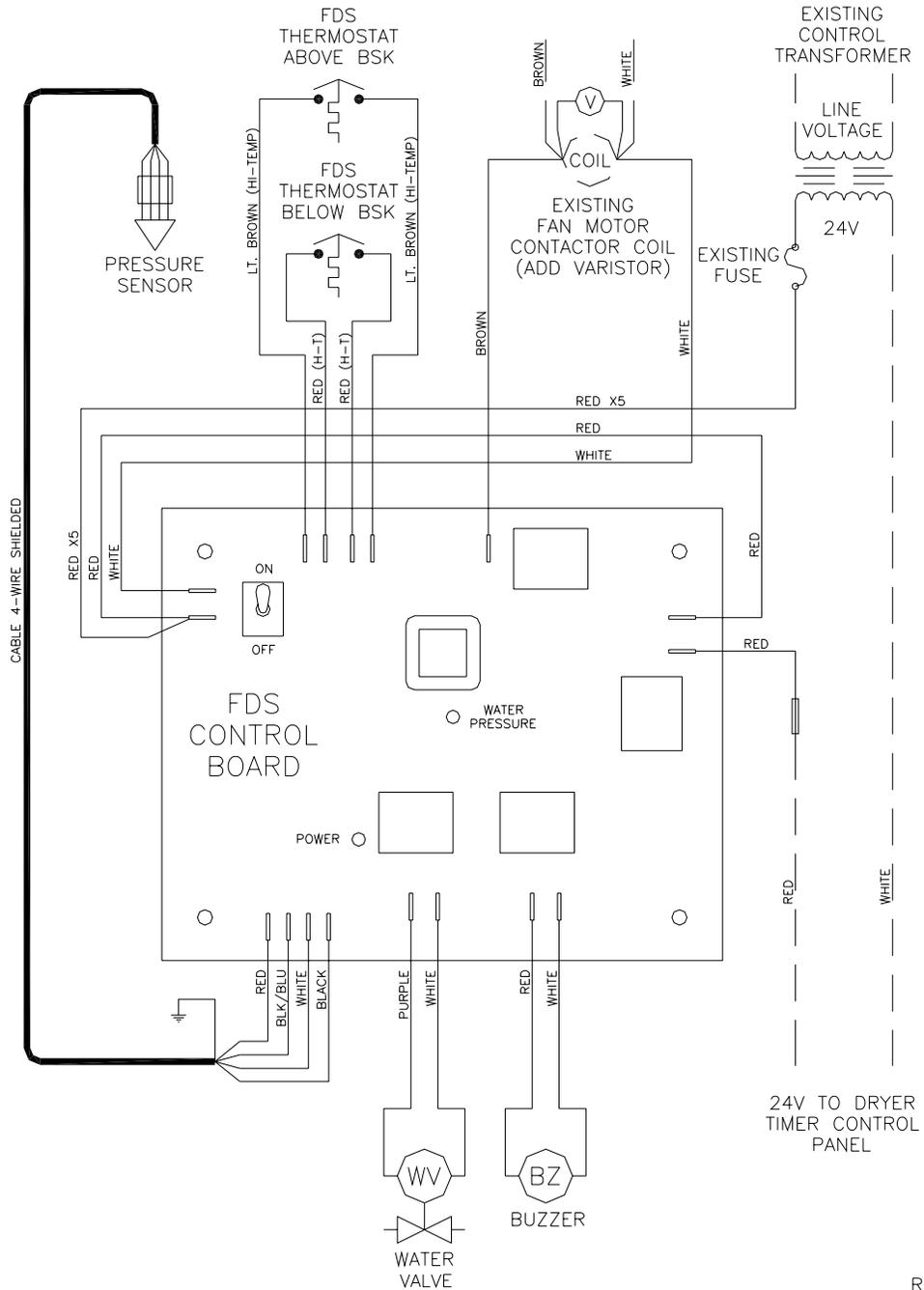
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|-----------------------|---|
| 1. ON - OFF SWITCH    | Turns the power on and off to the FDS Control Board.                  |
| 2. POWER LED          | Illuminated when FDS Control Board has power.                         |
| 3. WATER PRESSURE LED | Illuminated when FDS Control Board sees water pressure above 10 psig. |

## FDS OPERATION

- **MONITOR FOR FIRE (*STAND-BY*)**
  - Power and water pressure leds are illuminated.
  - Buzzer off.
  - Dryer main control has power.
  - Water valve off.
- **MONITOR FOR FIRE (*LOW OR NO WATER PRESSURE*)**
  - Power led is illuminated.
  - Water pressure led off.
  - Buzzer on intermittently.
  - Dryer main control has power.
  - Water valve off.
- **FIRE DETECTED (*FDS THERMOSTAT(S) CLOSE*)**
  - Power and water pressure leds are illuminated.
  - Buzzer on continuously.
  - Power to main control disconnected.
  - Water valve opens (Two to six minutes approximately depending on water pressure).
  - Water valve closes after predetermined volume of water has sprayed into basket.

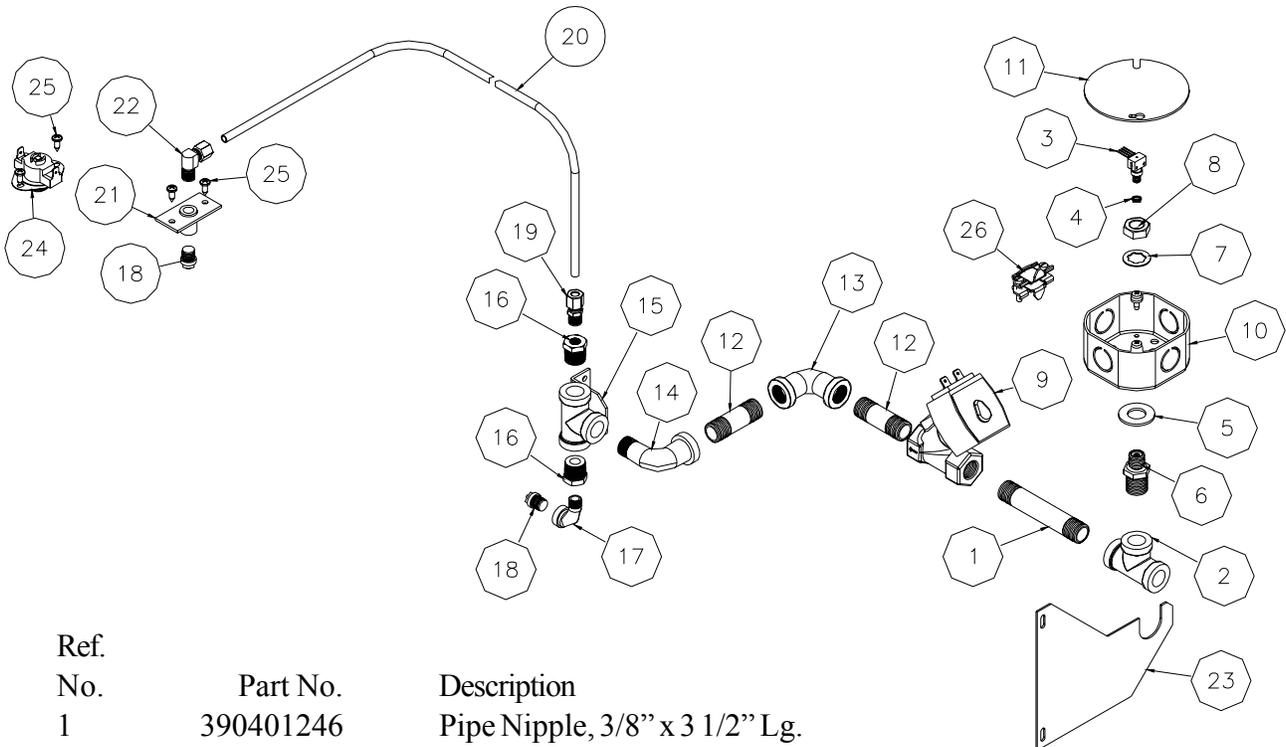
**CAUTION:** Do not attempt operation of dryer following an activation of the FDS system and have the dryer inspected by a qualified installer, service technician, or gas supplier.

FDS can be reset by turning power off to the FDS board.



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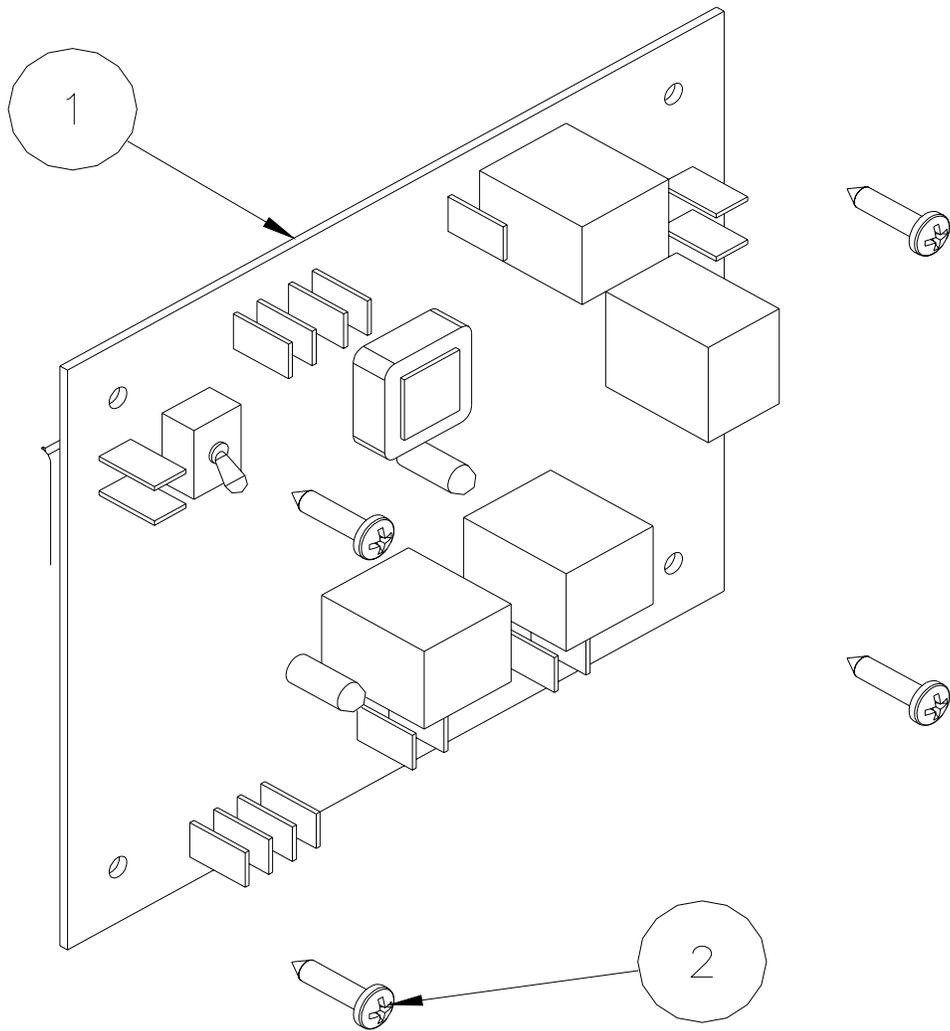
# FDS PART REFERENCE



Ref. No.	Part No.	Description
1	390401246	Pipe Nipple, 3/8" x 3 1/2" Lg.
2	SF247	Tee, 3/8"
3	TU15823	Sensor, Pressure
4	TU15824	O-Ring
5	TU2883	Washer, 1/2" Flat
6	TUX606	Fitting
7	OP251	Washer, Int. Tooth 1/2"
8	OP235	Nut, Jam 1/2"
9	F1289	Valve, Solenoid
10	TUX605	Junction Box
11	TU2335	Cover, Junction Box
12	390401016	Nipple, 3/8" x 2" Lg.
13	TU11702	Elbow, 3/8" Std.
14	390501057	Elbow, 3/8" Street Elbow
15	TU15907	Rear Tee Mounting Welded Assembly
16	TU15934	Bushing, Reducer, 3/8" to 1/8
17	FG142	Elbow, 1/8" Street Elbow
18	TUX609	Water Nozzle
19	OP297	Connector, Straight, 1/8" MP to 1/4 ODT
20	TU15935	Tube, FDS
21	TU15908	Front Nozzle Welded Assembly
22	TU2722	Elbow, Compress, 1/8" MP to 1/4" ODT
23	TU15862	Bracket
24	TUX613	Thermostat, 280 Degree
25	TU7733	Screw, #8 Self Drilling
26	M155	Connector, Wire Cable

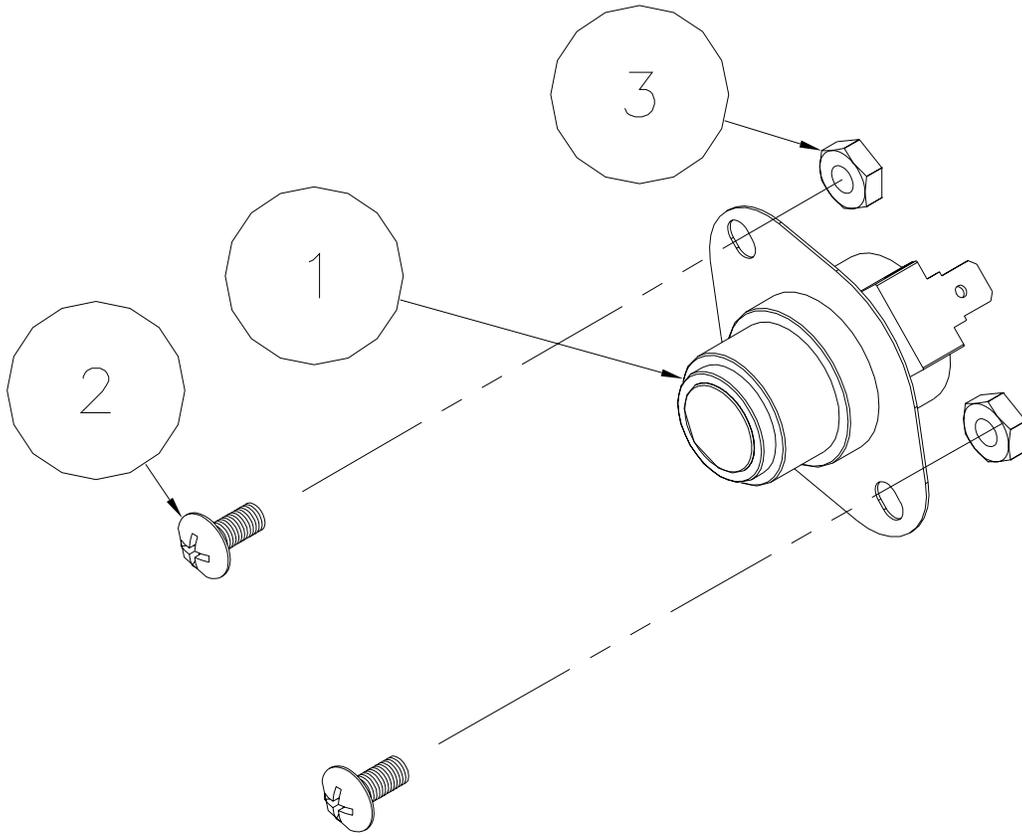
# FDS BOARD

(LOCATED IN REAR NEXT TO ELECTRICAL BOX)



Ref. No.	Part No.	Description
1	TU15814A	Board, FDS
2	F540	Screw, #6

# FDS THERMOSTAT BELOW BASKET



	Ref. Part No.	Description
	No.	
1	TUX613	Switch - 220 degrees
2	M262	Screw, #8-32
3	TU3266	Nut, hex brass #8-32

